

# ENRICO CASELLA

PHD CANDIDATE

## PERSONAL PROFILE

PhD candidate conducting research on cyber-physical systems such as smart grids for power conservation, and smart farms for early disease prediction. I also supervise undergrad research.

## AWARDS & ACHIEVEMENTS

Computational Commonwealth Summit 2020 winner

## SERVICES

- Paper reviews for: SMARTCOMP, WoWMoM, GLOBECOM, WiMob, LCN, ICC, IWQoS, DCOSS, COMSNETS, ICDCS
- Graduate Student Congress member - Mental Health Committee
- Representative for GSACS (Graduate Student Association of Computer Science)

## EDUCATION

- Doctorate, Computer Science  
University of Kentucky (Fall 2018 - present)
- Master of Science, Computer Engineering  
University of Palermo (2015-2018)
- Bachelor of Science, Computer and Telecommunication Engineering  
University of Palermo (2012-2015)

## CONTACT INFORMATION

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## EMPLOYMENT HISTORY

### Research Assistant

University of Kentucky (CPSlab) (Summer 2019 - Present)

- Power conservation on smart grids by means of reverse auctions, machine learning power saving predictions, online surveys to model user behavior
- Diagnosis and early prediction of Bovine Respiratory Disease with machine learning techniques in smart farms by means of precision livestock technology

### Teaching Assistant for CS371

University of Kentucky (Spring 2019)

- Final project development
- Lectures on Intro to Machine Learning
- Lectures on packages and coding requirements for projects

### Teaching Assistant for CS215

University of Kentucky (Fall 2018)

- Leading lab classes
- Grading

### Visiting Research Scholar

Missouri University of Science & Technology (2017)

- Research and development of structural machine learning techniques
- Research and hands-on project on human activity recognition

## PUBLICATIONS

### Personal and Ubiquitous Computing. Springer

[\*] Hierarchical Syntactic Models for Human Activity Recognition through Mobility Traces

### International Conference on Smart Computing (SMARTCOMP)

[\*] Smartwatch application for Horse Gaits Activity Recognition

### Pervasive and Mobile Computin. Elsevier

[\*] Smartwatch application for Horse Gaits Activity Recognition

### International Conference on Pervasive Computing and Communications (PerCom) - accepted, in press

[\*] HVAC Power Conservation through Reverse Auctions and Machine Learning

### DCOSS CONFERENCE - accepted, in press

[\*] Cost-aware Inference of Bovine Respiratory Disease in Calves using Precision Livestock Technology

### Animal Science (Frontier) - minor revision

Using machine learning and precision livestock farming technology for early indication of Bovine Respiratory Disease status in preweaned dairy calves

### SMARTCOMP CONFERENCE (under submission)

[\*] Dissecting the Problem of Individual Home Power Consumption Prediction using Machine Learning

[\*] indicates first author